

**Amendments to the Specification:**

Please amend paragraph [0028] on page 17 of the specification as follows:

--The embodiment of the present invention will be described based on Fig. 5. While continuously feeding  $\text{SiH}_2\text{Cl}_2$  at a partial pressure of 10 sccm,  $\text{C}_2\text{H}_2$  was intermittently fed to grow silicon carbide. The partial pressure of the  $\text{SiH}_2\text{Cl}_2$  was 10 sccm.  $\text{C}_2\text{H}_2$  was intermittently fed 1,000 times at intervals of 5 sec at a partial pressure of 10 sccm. Each time, the  $\text{C}_2\text{H}_2$  was fed for 5 sec. Growth of silicon carbide required 2.8 hour. As a result of the growth,  $67\text{ }\mu\text{m}$  of single crystal silicon carbide was obtained on the silicon substrate. The effective growth rate of silicon carbide was  $24\text{ }\mu\text{m/hr}$ . Further, surface defects such as anti phase boundaries and twin crystal bands had been eliminated from the surface of the crystal obtained. In this manner, the use of the present invention permitted an accelerated rate of silicon carbide growth exceeding  $10\text{ }\mu\text{m/hr}$  and permitted a substantial decrease in crystal defects. ( ~~$\text{fc}_2/\text{fs}=4\text{xSs}/\text{Sc}$ ,  $\text{fc}_1=0$ , that is  $\text{pc}_2/\text{ps}=4\text{xSx}/\text{Sc}$ ,  $\text{pc}_1=0$~~ ) ( ~~$\text{fc}_1/\text{fs}=4\text{xSs}/\text{Sc}$ ,  $\text{fc}_2=0$ , that is  $\text{pc}_1/\text{ps}=4\text{xSx}/\text{Sc}$ ,  $\text{pc}_2=0$~~ ).

Please amend paragraph [0031] on page 18 of the specification as follows:

The embodiment of the present invention will be described based on Fig. 6 below. While continuously feeding  $\text{SiH}_2\text{Cl}_2$  at a flow rate of 10 sccm,  $\text{C}_2\text{H}_2$  was intermittently fed to grow silicon carbide. The  $\text{SiH}_2\text{Cl}_2$  flow rate was a constant 10 sccm.  $\text{C}_2\text{H}_2$  was intermittently fed 1,000 times at intervals of 5 sec. Each time,  $\text{C}_2\text{H}_2$  was fed for 5 sec. However, the flow rate  $\text{fc}$  of  $\text{C}_2\text{H}_2$  was treated as a parameter and  $\text{fc}_2$  was varied from 0.5-200 sccm and the change in silicon carbide growth was observed. ( ~~$\text{fc}_2/\text{fs}=4\text{xSs}/\text{Sc}$ ,  $\text{fc}_1=0$ , that is  $\text{pc}_2/\text{ps}=4\text{xSx}/\text{Sc}$ ,  $\text{pc}_1=0$~~ ) ( ~~$\text{fc}_1/\text{fs}=4\text{xSs}/\text{Sc}$ ,  $\text{fc}_2=0$ , that is  $\text{pc}_1/\text{ps}=4\text{xSx}/\text{Sc}$ ,  $\text{pc}_2=0$~~ ).

Please amend the first paragraph on page 19 of the specification as follows:

Table 1 shows the changes in growth rates of silicon carbide by  $fc_2/fs$   $fc_1/fs$ . When  $fc_2/fs$   $fc_1/fs$  (that is,  $pc_2/ps$   $pc_1/ps$ ) was  $Ss/Sc$  (0.25) or greater, the growth rate of silicon carbide exceeded  $10 \mu\text{m/hr}$  and the effect of the present invention was apparent. However, when  $fc_2/fs$   $fc_1/fs$  (that is,  $pc_2/ps$   $pc_1/ps$ ) was less than  $Ss/Sc$  (0.25), not only did the growth rate of silicon carbide decrease, but silicon precipitated in the silicon carbide, precluding the effect of the present invention. Further, when  $fc_2/fs$   $fc_1/fs$  (that is,  $pc_2/ps$   $pc_1/ps$ ) exceeded 2.5, the level of adsorption of  $C_2H_2$  on the substrate surface increased. Since adsorption of  $SiH_2Cl_2$  was blocked, the growth rate of silicon carbide dropped precipitously, precluding the effect of the present invention. Silicon carbide grown at an  $fc_2/fs$   $fc_1/fs$  of not less than 0.15 and not greater than 3.5 did not exhibit surface defects such as anti phase boundaries and twin crystals.

Please delete the heading of Table 1 on page 20 of the specification in favor of the following new heading:

$fc_1$ (sccm)	$fc_1/fs$ ( $pc_1/ps$ )	silicon carbide growth rate ( $\mu\text{m/hr}$ )
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Please amend paragraph [0035] on page 21 of the specification as follows:

The embodiment of the present invention will be described based on Fig. 7 below. While continuously feeding  $SiCl_4$  at a flow rate of 20 sccm,  $C_3H_6$  was intermittently fed to grow silicon carbide.  $C_3H_6$  was fed 1,000 times at intervals of 5 sec, each time lasting 5 sec. However, the flow rate  $fc$  of  $C_3H_6$  was treated as a parameter and  $fc_2/fs$   $fc_1$  was varied from 0.5-200 sccm and the change in silicon carbide growth was observed ( $fc_1=0$ , that is,  $pc_1=0$ ) ( $fc_2=0$ , that is,  $pc_2=0$ ).

Please amend the first paragraph on page 22 of the specification as follows:

Table 2 shows the changes in growth rates of silicon carbide by  $fc2/fs$   $fc1/fs$ . When  $fc2/fs$   $fc1/fs$  (that is,  $pc2/ps$   $pc1/ps$ ) was  $Ss/Sc$  (0.68) or greater, the growth rate of silicon carbide exceeded  $10 \mu m/hr$  and the effect of the present invention was marked. However, when  $fc2/fs$   $fc1/fs$  (that is,  $pc2/ps$   $pc1/ps$ ) was less than  $Ss/Sc$  (0.68), not only did the growth rate of silicon carbide decrease, but silicon precipitated in the silicon carbide, precluding the effect of the present invention. Further, when  $fc2/fs$   $fc1/fs$  (that is,  $pc2/ps$   $pc1/ps$ ) exceeded 6.8, the level of adsorption of  $C_2H_5$  on the substrate surface increased. Since adsorption of  $SiCl_4$  was blocked, the growth rate of silicon carbide dropped precipitously, precluding the effect of the present invention.

Please amend the second paragraph on page 22 of the specification as follows:

Silicon carbide grown at an  $fc2/fs$   $fc1/fs$  (that is,  $pc2/ps$   $pc1/ps$ ) of not less than 0.2 and not greater than 5 did not exhibit surface defects such as anti phase boundaries and twin crystals.

Please delete the heading of Table 2 on page 23 pf the specification in favor of the following new heading:

$fc1$ (sccm)	$fc1/fs$ ( $pc1/ps$ )	silicon carbide growth rate ( $\mu m/hr$ )
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Please amend paragraph [0040] on page 24 of the specification as follows:

The embodiment of the present invention will be described based on Fig. 8 below. While continuously feeding  $SiH_2Cl_2$ ,  $C_2H_2$  was intermittently fed to grow silicon carbide. The  $C_2H_2$  flow rate ( $fc2$ ) ( $fc1$ ) was a constant 10 sccm ( $fc1=0$ , that is,  $pc1=0$ ) ( $fc2=0$ , that is,  $pc2=0$ ).  $C_2H_2$  was intermittently fed 1,000 times at intervals of 5 sec for 5 sec each time. However, the flow

rate  $f_s$  of  $\text{SiH}_2\text{Cl}_2$  was treated as a parameter and  $f_s$  was varied from 15 sccm to 200 sccm and the change in silicon carbide growth was observed.

Please amend the first paragraph on page 25 of the specification as follows:

Table 3 shows the changes in growth rates of silicon carbide by fgs. When  $f_{c2}/f_s$   $f_{c1}/f_s$  (that is,  $p_{c2}/p_s$   $p_{c1}/p_s$ ) was  $S_s/S_c$  (0.25) or greater, the growth rate of silicon carbide exceeded  $10 \mu\text{m/hr}$  and the effect of the present invention was apparent. However, when  $f_{c2}/f_s$   $f_{c1}/f_s$  (that is,  $p_{c2}/p_s$   $p_{c1}/p_s$ ) was less than  $S_s/S_c$  (0.25), not only did the growth rate of silicon carbide decrease, but silicon precipitated in the silicon carbide, precluding the effect of the present invention. Further, when  $f_{c2}/f_s$   $f_{c1}/f_s$  (that is,  $p_{c2}/p_s$   $p_{c1}/p_s$ ) exceeded 2.5, the level of adsorption of  $\text{C}_2\text{H}_2$  on the substrate surface increased. Since adsorption of  $\text{SiH}_2\text{Cl}_2$  was blocked, the growth rate of silicon carbide dropped precipitously, precluding the effect of the present invention.

Please amend the second paragraph on page 25 of the specification as follows:

Silicon carbide grown at an  $f_{c2}/f_s$   $f_{c1}/f_s$  (that is,  $p_{c2}/p_s$   $p_{c1}/p_s$ ) of not less than 0.2 and not greater than 10 did not exhibit surface defects such as anti phase boundaries and twin crystals.

Please delete the heading of Table 3 on page 26 of the specification in favor of the following new heading:

$f_{c1}$ (sccm)	$f_{c1}/f_s$ ( $p_{c1}/p_s$ )	silicon carbide growth rate ( $\mu\text{m/hr}$ )
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Please amend paragraph [0045] on pages 27 and 28 of the specification as follows:

The embodiment of the present invention will be described based on Fig. 9 below. While

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continuously feeding  $\text{SiH}_2\text{Cl}_2$ ,  $\text{C}_2\text{H}_2$  was intermittently fed to grow silicon carbide. The  $\text{SiH}_2\text{Cl}_2$  flow rate was a constant 10 sccm, and the  $\text{C}_2\text{H}_2$  flow rate ~~(fc2)~~ (fc1).  $\text{C}_2\text{H}_2$  was a constant 10 accm ~~(fc1=0, that is pc1=0)~~ (fc2=0, that is pc2=0).  $\text{C}_2\text{H}_2$  was repeatedly fed 1,000 times at intervals of 5 sec. However, the time during which  $\text{C}_2\text{H}_2$  was fed each time, denoted as  $t_c$ , was taken as a parameter and varied from 0 sec to 60 sec, and the change in silicon carbide growth rate was observed.